Capt. Barnard of New York says, "I have the highest opinion of its goodness. In the first place, it does not mildew like foreign canvass—it is soft and pliable, and wears much better than any canvass I ever used—nor does it shrink and stretch like foreign canvass, having had it in use two voyages to Europe, and experienced very bad weather."

Captain E. Hawkins of the Havre packet line, New York, says, "I have worn the Phenix Mill duck, for some time, and can safely say that I have the highest opinion of its pliability, durability, and resistance of mildew. Those who try it will scarcely procure any other, as it will undoubtedly be found the best and most economical canvass that we can procure any where, and I have great pleasure in recommending it to the notice of all consumers of the article."

There are numerous other certificates to the same effect.

The first cost of the American canvass is stated to be less than that of Holland, or Russia, notwithstanding its greater durability. The pamphlet closes with the following remarks.—"The great superiority of this duck consists in the fact that it does not mildew, which does not arise from the use of any process to prevent it, but from the circumstance of not using that which causes it.—Many attempts have been made in England to deprive the starching of its destructive power, by tanning and the use of acids, but all in vain. As long as manufacturers pay more attention to the appearance than they do to the substance, so long will it be used in all cloth, and its injurious effects will continue to be experienced by the consumer.

"In nearly seven years' experience in the wear of this article, during which time we have had repeated contracts with the Navy of the United States, we never have had a complaint of duck manufactured from water retted flax; we feel, therefore, that we are justified in recommending it to the ship owner; more especially as the foregoing letters carry with them unequivocal proofs, of its superiority over any other description of canvass—and these evidences of its excellence are accumulating upon us every day.

"It is our interest to sustain the good reputation of the duck, as we have invested a capital of 140,000 dollars in buildings and machinery: it can never be supposed, therefore, that for a temporary gain of one thousand dollars, we should make an inferior article, and, with loss of reputation, sacrifice this capital. On the contrary, our interest and our disposition both demand of us, that we should even improve its quality; and we are consequently desirous of possessing every information which the ingenuity and experience of those who use it can suggest.—We trust and hope that those intentions will meet with a corresponding good feeling on the part of the consumers, and we shall insure that encouragement which we have some right to expect from our enterprise."

Townsend's 'Mechanics' Assistant.'

Although the invention under the above designation, has been long in use, we think that it is not as extensively known, or as highly appreciated as it merits to be. Workmen who have followed a particular routine in their operations, are rarely willing to deviate from the beaten track, excepting the new procedure can at once be made visible, and palpable, in all its parts. This state of things, however, has been visibly changing, for some years past, and a brighter era is dawning upon us, as the artisan is becoming convinced that the light of science, which has conducted the philosopher in the attainment of the true theory of many of the operations of nature, is practically applicable to his pursuits, and will enable him to perform his labours with greater facility, and to attain a higher degree of perfection than could be hoped for without its aid.

The instrument denominated the Mechanics' Assistant, consists of a brass scale, a little upwards of six inches long, and four inches wide, and by the aid of which millwrights, pattern makers, blacksmiths, carpenters, and other mechanics, may be saved the trouble of numerous tedious calculations, or, which is frequently more tedious, the arrival at the needed result, by numerous trials. We cannot detail all the purposes to which the scale is applicable, but the following will suffice to show its utility. By it may be found,

The pitch circle of any number of cogs, and any pitch;
The laying off of bevel gears, in every change of direction;
The velocity of water per second, under different heads;
The velocity of wheels when loaded;
Laying off hoppers, potters' flasks, rafters for roofs, &c.;
Ascertaining the width of streams;
Sloping the ends of braces;
Making bands, hoops, &c.;
Measuring the area of a circle; and
Finding the square which shall correspond with it;
Finding the cubic contend of cylinders, &c. &c.

The scale is accompanied by a pamphlet, which gives a clear explanation of its application to the above, and many other purposes. There are also a number of printed certificates of its value; and we have in our possession many others, written by practical mechanics, who declare that it has been a sure guide to them, and has many times repaid its cost.

Mr. David Townsend, who resides at Beaver Falls in this state, has sent some of his instruments and pamphlets to Philadelphia, for sale, and they are now in the hands of Mr. Dobson, where those interested may call and see them. The price of them is ten dollars.

Tyler's Improved Turning Lathe.

[With a plate.]

WE gave, in Vol. 3, p. 186, a description of Mr. Tyler's turning lathe, which description was accompanied by a plate, showing its structure, in detail, and to this we refer for information on this point. The plate which we now give, is more correctly drawn, and exhibits it on its cast iron stand, as recently constructed. The attention of the mechanic is particularly called to the fact of the superiority of cast iron, as a collar, a fact which has been fairly tested, and which not only diminishes the labour of the maker, but gives a solid, in-